

DERWENT-ACC-NO: 1988-016216
DERWENT-WEEK: 198803
COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Dual vibration frequency flow meter - has frequency tuned inner and outer tubes, electromagnetic exciter and magnetic, capacitive, or optical sensors

INVENTOR: GUILLOUD, J C

PATENT-ASSIGNEE: ASSIST IND DAUPHINO[ASSIN]

PRIORITY-DATA: 1986FR-0007340 (May 13, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
FR 2598801 A	November 20, 1987	N/A
013	N/A	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
FR 2598801A	N/A	1986FR-0007340
May 13, 1986		

INT-CL (IPC): G01F001/78

ABSTRACTED-PUB-NO: FR 2598801A

BASIC-ABSTRACT: A cylindrical tube (12) carries the fluid whose mass flow is to be measured and is itself within a further concentric tube (14) made from a stiffer material. Supports (15) accommodate relative axial movement between the two tubes due to heating but prevent rotation. Electromagnetic excitors (16) induce vibrations in the inner tube which are at fundamental frequency when the tube is empty. When however a mass flow takes place, second mode vibrations are also created. Sensors, which may be capacitive, magnetic, or

optical accelerometers, are fitted in pairs at positions a quarter and three quarters along the tube and the difference of their signals is measured. The difference is proportional to the flow. Performance is improved by the provision of springs in the excitors which bring fundamental and second mode frequencies closer together.

USE/ADVANTAGE - Corrosive and viscous liquids or slurries can be handled.

There are no parallel paths to introduce error.

CHOSEN-DRAWING: Dwg. 6/10

TITLE-TERMS:

DUAL VIBRATION FREQUENCY FLOW METER FREQUENCY TUNE INNER
OUTER TUBE
ELECTROMAGNET EXCITATION MAGNETIC CAPACITANCE OPTICAL SENSE

ADDL-INDEXING-TERMS:

CORROSION SLURRY

DERWENT-CLASS: S02

EPI-CODES: S02-C01B; S02-C01X;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1988-012116